

**REMARKS**

Claims 1-9 are pending in the application. Claim 9 is newly added.

Applicant notes with appreciation that the Examiner has indicated that claims 4 and 8 would be allowable if rewritten in independent form, and that claim 9 is allowable. Rather than rewriting claim 4, Applicant has added a new claim 10 that incorporates subject matter from claims 1, 3 and 4. Thus, claim 10 is an allowable independent claim.

Claims 1 and 9 are amended per the agreement between Applicant's attorney and the Examiner during an interview dated November 3, 2005. The Examiner indicates that the references cited below teach the claimed invention even as amended per the interview. For the reasons described below, Applicant respectfully disagrees.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,737,349 to Gaebe, hereinafter "Gaebe". Claim 1 is independent. Applicant respectfully traverses this rejection.

Independent claim 1 provides a mounting arrangement for a laser source and at least one auxiliary electrical component associated therewith. The laser source and the auxiliary electrical component are mounted on a general plane of extension of a submount. The at least one auxiliary electrical component is mounted on the submount so that a longest dimension of the at least one auxiliary component is at least substantially orthogonal to the general plane of the submount.

Gaebe discloses a laser module assembly 80 having a housing unit 102 that contains optical components for transmitting light rays generated by a laser source 82 (col. 4, lines 6-12). A thermo-electric cooler (TEC) 110, disposed on a base wall 84, securely holds laser source 82, a spherical lens 92, an input polarizer 94, a Faraday rotator 96, and an output polarizer 98 (col. 4, lines 15-19).

Whereas Gaebe discloses a laser module assembly having **optical components**, Gaebe does not disclose mounting **electrical components**. Furthermore, Gaebe does disclose or suggest that the optical components should be configured based on their longest dimensions, and further does not disclose or suggest that the longest dimension of the optical components should be configured orthogonal to the assembly. Furthermore, Figures 3 and 4 show only two dimensions of each optical components, and thus do not demonstrate which dimension of each optical component is the longest.

Therefore, Gaebe does not disclose or suggest a "mounting arrangement for a laser source and at least one auxiliary electrical component associated therewith, said laser source and said auxiliary electrical component being mounted on a general plane of extension of a submount, wherein said at least one auxiliary electrical component is mounted on said submount so that a longest dimension of said at least one auxiliary electrical component is at least substantially orthogonal to said general plane of said submount," as recited in claim 1. Thus, Gaebe fails to disclose or suggest the elements of claim 1. Accordingly, claim 1 is patentable over Gaebe.

Claim 7 depends from claim 1. For at least reasoning similar to that provided in support of the patentability of claim 1, claim 7 is patentable over Gaebe.

For the reasons set forth above, the rejection of claim 1 under 35 U.S.C. 102(b) as anticipated by Gaebe is overcome. Applicant respectfully requests that the rejection of claim 1 be reconsidered and withdrawn.

Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,436,920 to Minemoto et al., hereinafter "Minemoto". Claim 1 is independent. Applicant respectfully traverses this rejection.

Minemoto discloses a small laser device to generate high power laser light,

including i) a laser diode mounted on a heat sink 61, ii) a light emission section 65 mounted on a copper plate 66, iii) a wavelength converter 73 and iv) an output mirror 74 arranged successively on a copper block 78 (col. 11, lines 40-45).

Minemoto discloses a laser device having numerous **optical components** for wavelength modulation and power increase of a laser emission. However, Minemoto does not disclose a laser device on which **electrical components** are mounted. Furthermore, Minemoto does not disclose or suggest how the longest dimension of the optical components should be configured. Figures 7 and 8 of Minemoto show only two dimensions of the optical components, and do not show the orientation of the longest dimensions of the optical components.

Therefore, Minemoto does not disclose or suggest a "mounting arrangement for a laser source and at least one auxiliary electrical component associated therewith, said laser source and said auxiliary electrical component being mounted on a general plane of extension of a submount, wherein said at least one auxiliary electrical component is mounted on said submount so that a longest dimension of said at least one auxiliary electrical component is at least substantially orthogonal to said general plane of said submount," as recited in claim 1. Thus, Minemoto fails to disclose or suggest the elements of claim 1. Accordingly, claim 1 is patentable over Minemoto.

Claim 7 depends from claim 1. For at least reasoning similar to that provided in support of the patentability of claim 1, claim 7 is patentable over Minemoto.

For the reasons set forth above, the rejection of claim 1 under 35 U.S.C. 102(b) as anticipated by Minemoto is overcome. Applicant respectfully requests that the rejection of claim 1 be reconsidered and withdrawn.

Claims 2, 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaebe in view of U.S. Patent No. 6,567,439 to Auracher et al, hereinafter "Auracher '439". Applicant respectfully traverses this rejection.

As discussed above, Gaebe discloses optical components for directing or altering laser emission from a laser source.

Auracher '439 discloses a RF laser module shown in Figure 2a, that has a laser chip 11 is disposed above a semiconductor substrate 12 (col. 4, lines 31-35). The RF data signal is passed via a suitable radio-frequency-compatible supply line, such as a stripline 18 (col. 4, lines 45-48). A matching resistor RA is integrated in a RF conductive path 22 on substrate 12 and is used to match the low-impedance laser chip 11 as well as possible to the characteristic impedance of the stripline 18 (col. 4, lines 56-64). Auracher '439 also discloses an optoelectronic component which is operated with the RF laser module, that includes a coaxial case 28 having a base plate 30 with four electrical bushings (col. 6, lines 41-50). A board 36, whose position in its section covered by case 28 is indicated by a dashed line in Figure 6, extends on the rear side of base plate 30 of case 28 (col. 6, lines 63-65). A bias-current pin 33 on base plate 30 may be connected by as short a distance as possible to an RF inductor located on board 36 (col. 7, lines 18-20).

Neither Gaebe nor Auracher '439 disclose the elements of the invention as provided in claim 1. Gaebe does not teach or suggest that the optical components should be configured based on their longest dimensions. Furthermore, Figures 3 and 4 show only two dimensions of each optical component, and thus do not demonstrate which dimension of each optical component is the longest. Gaebe thus does not show or describe a preferred orientation of the optical components.

Auracher '439 discloses a component  $R_A$  disposed on a substrate along with a laser chip. It is evident from the Figures, such as Figure 2a, that the longest dimension of the component  $R_A$  is NOT the longest dimension. Also, the RF inductor of Auracher '439 cited by the Office Action is not mounted on the same substrate as the laser chip. Therefore, Auracher '439 does not disclose or suggest a component on a substrate with a laser source whose longest dimension is orthogonal to the substrate.

Thus, neither Gaebe nor Auracher '439 disclose a component on a substrate with a laser source whose longest dimension is orthogonal to a substrate. Therefore, neither Gaebe nor Auracher '439, whether considered alone or in combination, disclose or suggest that "at least one auxiliary electrical component is **mounted on said submount so that a longest dimension of said at least one auxiliary electrical component is at least substantially orthogonal** to said general plane of said submount, as recited in claim 1. Accordingly, claim 1 is patentable over the cited combination of Gaebe and Auracher '439.

Claims 2, 3 and 5 depend from claim 1. For at least reasoning similar to that provided in support of the patentability of claim 1, claims 2, 3 and 5 are patentable over the cited combination of Gaebe and Auracher '439.

For the reasons set forth above, the rejection of claims 2, 3 and 5 under 35 U.S.C. 103(a) as unpatentable over Gaebe in view of Auracher '439 is overcome. Applicant respectfully requests that the rejection of claims 2, 3 and 5 be reconsidered and withdrawn.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gaebe in view of U.S. Patent No. 6,567,439 to Auracher et al, hereinafter "Auracher '727". Applicant respectfully traverses this rejection.

As discussed above, Gaebe does not disclose or suggest a preferred orientation of optical components on a substrate. Applicant does not believe that Auracher '727 makes up for the deficiencies of Gaebe, as Gaebe applies to claim 1.

Auracher '727 discloses a circuit having at least one first resistor, an RF inductor which is connected to a voltage source and applies a bias to a semiconductor laser via the first resistor, a second resistor connected in series with the first resistor, and a

further resistor, whose one connection is connected to ground and whose other connection is connected to the first resistor (col. 3, lines 8-21). Auracher '727 discloses that components in the circuit may be produced using Surface Mounted Device technology (col. 3, lines 27-30). However, Auracher does not provide any detail regarding the orientation or dimensions of such SMD components, and thus does not disclose or suggest a SMD component on a substrate with a laser source whose longest dimension is orthogonal to the substrate.

Thus, neither Gaebe nor Auracher '727 disclose a component on a substrate with a laser source whose longest dimension is orthogonal to a substrate. Therefore, neither Gaebe nor Auracher '727 disclose or suggest that "at least one auxiliary electrical component is **mounted on said submount so that a longest dimension of said at least one auxiliary electrical component is at least substantially orthogonal** to said general plane of said submount, as recited in claim 1. Accordingly, claim 1 is patentable over the cited combination of Gaebe and Auracher '727.

Claim 6 depends from claim 1. For at least reasoning similar to that provided in support of the patentability of claim 1, claim 6 is patentable over the cited combination of Gaebe and Auracher '727.

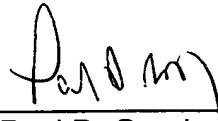
For the reasons set forth above, the rejection of claim 6 under 35 U.S.C. 103(a) as unpatentable over Gaebe in view of Auracher '727 is overcome. Applicant respectfully requests that the rejection of claim 6 be reconsidered and withdrawn.

An indication of the allowability of all pending claims by issuance of a Notice of Allowability is earnestly solicited.

Respectfully submitted,

Date: \_\_\_\_\_

2/14/06



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